

EXHIBIT 1

**UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

ALIGN TECHNOLOGY, INC.,

Plaintiff,

v.

CLEARCORRECT OPERATING, LLC,
CLEARCORRECT HOLDINGS, INC., & IN-
STITUT STRAUMANN AG,

Defendants.

Case No. 6:24-cv-00187-ADA-DTG

PATENT CASE

JURY TRIAL DEMANDED

CLEARCORRECT OPERATING, LLC,
CLEARCORRECT HOLDINGS, INC., &
STRAUMANN USA, LLC,

Counterclaim-Plaintiffs,

v.

ALIGN TECHNOLOGY, INC.,

Counterclaim-Defendant.

DECLARATION OF ERIC KUO, DDS

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I. INTRODUCTION

1. I have been asked by counsel for Align Technology, Inc. (“Align”) to provide my opinion regarding how a person of ordinary skill in the art would have understood certain claim terms appearing in United States Patent Nos. 8,038,444 and 11,369,456 as of August 30, 2006. My opinions regarding those claim terms and the knowledge of a person of ordinary skill in the art are provided herein.

II. BACKGROUND AND QUALIFICATIONS

2. My qualifications, including a list of publications authored in the last ten years, are listed in my Curriculum Vitae, which is attached as **Appendix A**. A brief summary of my background and experience is provided below.

3. I am a practicing orthodontist, clinical lecturer, and consultant. I received my Doctor in Dental Surgery (DDS) degree from the University of California, Los Angeles, in 1996. In 1999, I completed my Orthodontic Residency with a Master’s Degree in Oral Biology at the University of California, San Francisco.

4. I also hold an Executive Management Certificate from the Kellogg School of Management at Northwestern University (2006) and a Certificate in Transformational Coaching from Western Seminary in San Jose, California (2018).

5. I am a member of several professional associations, including the American Association of Orthodontists (AAO), the California Association of Orthodontists (CAO), the American Dental Association (ADA), the California Dental Association (CDA), and the San Francisco Dental Society (SFDS).

6. From 1999 through today, I have worked in private clinical practice as an orthodontist. I have offered Invisalign clear aligner treatment since 1999 and have treated over

four hundred patients with Invisalign aligners to date.

7. I have presented at numerous professional events and dental conferences, including the Yankee Dental Congress, the European Aligner Society Inaugural Congress, the American Association of Orthodontists Annual Session, the Saudi Orthodontic Society Annual Meeting, the University of California San Francisco Wendell Wyllie Memorial Lecture, the Invisalign Summit, and the SAS Data Mining Conference. I also served as an Invisalign Clinical Education faculty member from 1999-2017.

8. From 1998-1999 and from 2013 to today, I worked as a consultant for Align Technology, Inc. (“Align”) in a technical advisory role. From 1999-2013, I held numerous positions at Align and was involved in several initiatives which are listed in Appendix A. For example, I managed Align’s Clinical Advisory Board, and I was the clinical lead for Align’s 510(k) application to the Food and Drug Administration for expanded labeling for the Invisalign System. I am an inventor on over 150 issued U.S. Patents related to clear aligner orthodontics. In the past four years, I testified in a deposition in the following case: *Align Technology, Inc. v. 3Shape A/S*, No. 1:18-cv-01949 (D. Del.)

III. COMPENSATION

9. I am being compensated for my work in connection with this matter at my current consulting rate of \$350 per hour. For all-day bookings, I am being compensated at my current daily rate of \$7,680. I am also being reimbursed separately for reasonable travel and other out-of-pocket expenses associated with my work. My compensation does not depend in any way on the outcome of this litigation or the nature of my opinions.

IV. LEGAL PRINCIPLES

10. I am not a legal expert, and I do not offer any legal opinions. I have been informed

by counsel of various legal standards and have applied those standards in arriving at the opinions I express in my report. The legal standards I applied are below.

A. Claim Construction

11. I understand that patent claims are construed according to their meaning to a person of ordinary skill in the art as of their critical date(s). I have been asked to and have assumed that the critical date of the '444 and '456 patents' claims is August 30, 2006 in providing my opinions in this declaration.

B. Basics of Claim Construction

12. I understand that one should first consider the “intrinsic evidence,” which includes the patent’s claim language, its specification, and its prosecution history, in construing patent claims. I understand that the words of the claims themselves are considered first. I understand those words are given their ordinary and customary meaning to one of ordinary skill in the art as of their critical date. I understand that the patent specification is considered next. I understand that one evaluates how the specification uses the claim terms, including whether the specification uses any terms or words in a way that is inconsistent with the plain and ordinary meaning of those words. I understand that the prosecution history should also be considered. I understand the prosecution history is the complete record of all proceedings before the United States Patent and Trademark Office regarding the patent at issue. Statements made by a patentee during prosecution may inform how a person of ordinary skill would interpret the issued claims.

13. I understand that one may also consider extrinsic evidence, such as textbooks, expert testimony, and other materials to determine how a person of ordinary skill would have understood the claims.

C. Indefiniteness

14. I understand that issued patent claims are presumed valid. I understand that a patent challenger must prove an issued patent claim is invalid by clear and convincing evidence.

15. I understand that, although patent claims are presumed valid, a patent claim may be invalid as indefinite if a person of ordinary skill would not understand the scope of what is claimed in the patent with “reasonable certainty.” I understand that a patentee is not required to define their claims with absolute or mathematical precision.

V. TREATMENT PLANNING PATENTS

A. Overview

16. The ’444 and ’456 patents share a common specification. I refer to the ’444 patent throughout my declaration, but my citations to, and description of that patent are exemplary and apply equally to the ’456 patent.

17. The ’444 patent is titled “Automatic Treatment Staging for Teeth.” The ’444 patent relates to methods and systems for determining how and when a patient’s teeth should move during treatment with clear aligners, which is also referred to as “treatment planning.” The ’444 patent’s abstract provides an overview of the subject matter of the patent:

Apparatus, system, and methods for utilizing one or more computing devices to stage the movement of teeth during an alignment treatment are disclosed. The computing device receives an electronic representation of the patient’s teeth in their initial position and an electronic representation of the teeth a final position for each tooth. A route each tooth will travel to reach its final position is determined, and the teeth are scheduled to move according to a movement pattern. Moreover, the schedule of movement takes into account a maximum rate of tooth movement for each tooth, the path of movement for each tooth, the distance each tooth needs to move, any needed tooth staggering, any needed round-tripping or tooth movement slowing. The invention also includes techniques for determining an optimum number of stages for the treatment based on the schedule of movement.

’444 pat., Abstract.

18. The ’444 patent discloses computer-implemented methods for planning treatment. For example, the ’444 patent describes a computer receiving “an electronic representation of a

patient's teeth in an initial position," receiving or generating "an electronic representation of a desired final position for each of the patient's teeth," and then "automatically creat[ing] a route for each tooth to move from its initial position to its final position." '444 pat., 5:12-22. The computer also can be configured to select a "pattern for treatment," where each "pattern" influences when each tooth moves during treatment. '444 pat., 6:15-19; *see also* '444 pat., 2:37-3:4, Figs. 3-10B. The computer also can perform collision avoidance, including by using "staggering," "round-tripping," and "slowing" techniques. '444 pat., 6:39-46. The '444 patent describes how to perform "staggering," "round-tripping" and "slowing" at column 12, lines 41-65.

B. Level of Ordinary Skill in the Art

19. In my opinion, a person of ordinary skill as of August 30, 2006, would have had the knowledge and experience of a collaborative team of people of ordinary skill including an individual with expertise in software and a qualified orthodontist or other dental practitioner. In my opinion, that collaborative team would have had or included someone with expertise in software because the '444 patent generally relates to software for modeling the movement of dental objects. In my opinion, the collaborative team also would have had or included someone with expertise in orthodontics because the '444 patent describes using the claimed software methods in the context of digital dentistry. In my opinion, the expert in orthodontics would have been an orthodontist or dental practitioner with a Doctor in Dental Surgery ("DDS") degree or Doctor in Dental Medicine ("DMD") degree, 2-3 years of orthodontic training or equivalent experience, and experience using clear aligners. I am familiar with the capabilities of such an individual because I have a Doctor in Dental Surgery degree, I completed orthodontics residency training, and I have significant experience working with clear aligners. In assessing how a person of ordinary skill

would have understood the '444 patent's disclosure, I have considered the intrinsic evidence from the perspective of the foregoing individual with expertise in orthodontics.

20. Dr. Harrell's declaration does not discuss the qualifications of a person of ordinary skill in the art as of August 30, 2006.

C. Disputed Claim Terms

21. I have been asked to provide opinions regarding the meaning of five terms in the '444 patent and the '456 patent. These terms are: "optimal number of stages for the order of movement of the dental objects" and four "pattern terms" ("A-shaped pattern"; "V-shaped pattern"; "M-shaped pattern"; and "mid-line shift pattern.")

22. I have been asked to assess whether a person of ordinary skill would reasonably understand the scope of "optimal number of stages for the order of movement of the dental objects." I have also been asked to provide my opinion regarding the definition of the four "pattern terms." Additionally, I have been asked to respond to certain opinions provided by Dr. Harrell. My opinions are set forth in detail below.

1. "optimal number of stages for the order of movement of the dental objects" ('444 patent, cls. 5, 19, 33)

Align's Construction	Defendants' Construction
"the largest number of the minimum stages needed to place the patient's teeth in their final, desired position"	Indefinite

23. I understand that Defendants argue that a person of ordinary skill would not understand the scope of "optimal number of stages for the order of movement of the dental objects" with "reasonable certainty." I disagree.

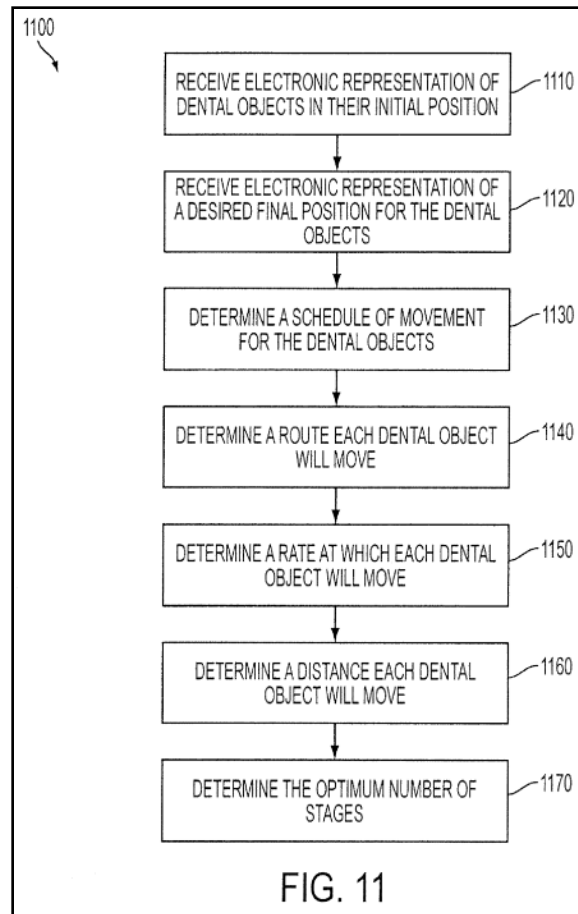
- (i) **The specification explains what "optimal number of stages for the order of movement of the dental objects" means and how to determine what the "optimal number of stages" is.**

24. The '444 patent explains what “optimal number of stages for the order of movement of the dental objects” means. The patent explains that the “optimal number of stages” is the “largest number of the minimum stages needed to place the patient’s teeth in their final, desired position.” '444 pat., 15:9-12, cls. 6, 20, 34. The '444 patent also explains how to determine the “largest number of the minimum stages needed to place the patient’s teeth in their final, desired position.” *Id.* The patent states:

For example, a patient has three teeth that need to be moved during treatment, wherein the first tooth needs 4 stages to move to its final position, the second tooth needs 9 stages to move to its final position, and the third tooth needs 6 stages to move to its final position. Assuming each of these teeth is scheduled to begin moving at the same stage, the optimum number of stages is 9 since this is the minimum number of stages needed to place all of the teeth in their final position.

'444 pat., 15:12-20.

25. The '444 patent also explains how to determine the “minimum number of stages needed to place the teeth in their final position.” '444 pat., 15:16-20. For example, the specification explains “the optimum number of stages, in one embodiment, is determined based upon the determinations of step[s],” including “determining a route for each of the patient’s teeth,” “determining a rate each tooth will move,” “determining a distance each tooth will need to travel to reach its final position,” and “factoring any staggering, slowing down/interim key framing, and/or round-tripping needed to place the patient’s teeth in their desired final position.” '444 pat., 14:50-65. Figure 11 of the '444 patent provides a flow chart with steps that lead to a determination of an “optimal number of stages”:



26. The specification also provides examples of treatment patterns wherein “the optimum number of stages needed for these respective examples factored in the type of pattern needed, the rate, the path, the distance, staggering, slowing down/interim key framing, and/or round-tripping in determining the optimum number of stages for treating the patient’s teeth.” ’444 pat., 14:65-15:3, Figs. 3-9.

27. Further, the specification provides information about how to assess these factors (for example, by explaining how to select a treatment pattern). ’444 pat., at *e.g.*, 5:41-67 (describing selecting an “A-shaped” pattern if a patient’s teeth have gaps, a “V-shaped” pattern if the patient’s teeth are crowded, or a “mid-line shift pattern” if a patient’s teeth are skewed to the left or right of the patient’s mid-line). The specification further notes that a patient’s pain tolerance would be considered in creating a treatment plan. *E.g.*, ’444 pat., 7:19-24, 8:18-25,

9:34-41, 10:49-56, 11:65-12:6.

28. A person of ordinary skill would have recognized that the factors described in the specification are objective. For example, the initial positions of a patient's teeth and the goals of the treatment are objective inputs into a treatment plan. As another example, certain tooth movement rates are generally accepted in clinical practice. Similarly, generally accepted boundaries exist in clinical practice for the maximum distance any particular tooth can move for a given period of time. These objective clinical norms drive the rate and range of tooth movement chosen for a given treatment plan. Similarly, a patient's subjective concerns about their teeth and smile can be translated into objective treatment goals. Patient comfort and pain tolerance can also be considered objectively as part of the treatment planning process.

29. In summary, as I have expressed in the above paragraphs, the number of stages needed for each tooth can be determined based on the foregoing objective factors. Once a treatment plan has been created, the "largest of the minimum number" of stages can then be objectively identified.

30. Therefore, in my opinion, the patent specification and claims provide sufficient information for a person of ordinary skill to understand the scope of "optimal number of stages for the movement of dental objects" with reasonable certainty.

(ii) ClearCorrect's dictionary definitions of "optimal" are not instructive.

31. To explain the meaning of the term "optimal," ClearCorrect relies on several dictionary definitions. Opening Brief at 11. In my opinion, these definitions would not have altered how a person of ordinary skill would have understood the meaning of "optimal number of stages for the order of movement of the dental objects."

32. A person of ordinary skill reading the '444 patent would consider the context of the

word “optimal” in the claims and the specification. A person of ordinary skill reading the claims and specification would understand that “optimal number of stages for the order of movement of the dental objects” is “the largest number of the minimum stages needed to place the patient’s teeth in their final, desired position.”

33. As noted above, the ’444 patent provides an example of this concept:

For example, a patient has three teeth that need to be moved during treatment, wherein the first tooth needs 4 stages to move to its final position, the second tooth needs 9 stages to move to its final position, and the third tooth needs 6 stages to move to its final position. Assuming each of these teeth is scheduled to begin moving at the same stage, the optimum number of stages is 9 since this is the minimum number of stages needed to place all of the teeth in their final position.

’444 pat., 15:12-20.

34. In other words, the ’444 patent makes clear that, in context, “optimal number of stages” has a specific meaning that is not simply “the best” “most favorable” or “most desirable.” Opening Brief at 11. Therefore, because the claims and specification adequately convey how to interpret “optimal number of stages” in the context of the ’444 patent, the dictionary definitions to which ClearCorrect cites would not impact how a person of ordinary skill would understand that term.

(iii) Determining the “optimal number of stages for the order of movement of the dental objects” involves objective inputs.

35. Dr. Harrell opines that orthodontists consider many factors when creating a treatment plan, including patient’s pain tolerance or sensitivity to teeth movement, cost, the patient’s timing goals, the patient’s teeth, the patient’s cooperation, and the teeth movement path. Harrell Decl. ¶ 55. Dr. Harrell also opines that “[t]here is no objective measure or metric” in the specification or in the field of orthodontics “to determine how to balance these and other factors to determine an optimal number of stages,” and that orthodontists are likely to give different

answers about the optimal number of stages for moving teeth when faced with the same patients. Harrell Decl. ¶ 56; *see also id.* ¶¶ 37-43, 53-55.

36. While I agree that factors such as patient pain tolerance, sensitivity to teeth movement, cost, timing goals, the teeth, patient cooperation, and movement path are relevant in developing a treatment plan, I do not agree that potential variations in how these factors are “balanced” and how these factors may be weighed means that an optimal number of stages cannot be determined. As I expressed above, the specification explains that a treatment plan can be prepared based on several objective inputs. The treatment plan, in turn, will define the number of stages each tooth needs to move into its final position. Once that information is known, the optimal number of stages can be identified by selecting the “largest of the minimum number” of stages.

* * *

37. For all of the foregoing reasons, in my opinion, a person of ordinary skill would understand the meaning and scope of the term “optimal number of stages for the order of movement of the dental objects” as used in the ’444 patent.

2. Pattern Terms

38. Claims 8-11, 22-25, and 36-39 of the ’444 patent and claim 3 of the ’456 patent each contain “pattern terms.” These terms are “V-shaped pattern,” “A-shaped pattern,” “M-shaped pattern,” and “mid-line shift pattern.” Each term refers to patterns of moving the teeth in a treatment plan. Generally speaking, treatment patterns define when each tooth starts and stops moving.

39. Dr. Harrell opines that the pattern terms are not “used in the industry” and have “no common meaning.” Harrell Decl. ¶¶ 48-49. Dr. Harrell also opines:

In my more than forty years of practicing as an orthodontist, I have never used, seen, or heard these Pattern Terms. Based on my experience . . . these are not terms that appear in common orthodontic textbooks, nor are they part of teaching

curriculums for orthodontic training. A practicing orthodontist or someone working alongside someone in orthodontics would not know these terms.

Harrell Decl. ¶ 47.

40. I am surprised by Dr. Harrell’s statement that he has “never used, seen, or heard these Pattern Terms” because, in my experience, orthodontists with clear aligner experience are typically aware of and familiar with these terms. I personally have been aware of these terms and have used them in practice for many years.

41. Dr. Harrell states that the patent specification “includes language that defines these terms.” Harrell Decl. ¶¶ 49-50. While I agree that the specification provides descriptions of the pattern terms, and examples of how teeth may move in each pattern, I do not agree that the specification defines the terms as they are set forth in ClearCorrect’s proposed constructions. In my opinion, ClearCorrect’s proposed constructions (set forth in paragraph 46 of Dr. Harrell’s Declaration) interpret the terms too narrowly in view of the ordinary meaning of the pattern terms and the examples provided in the specification.

a. “V-shaped pattern” (’444 patent, cls. 8, 22, 36; ’456 patent, cl. 3)

Align’s Construction	Defendants’ Construction
No construction necessary (plain and ordinary meaning)	“A pattern where teeth having the same and/or similar positions on the arch will be moved beginning at the same stage, and will move continuously until they reach their final position, and where the most posterior-positioned teeth move first (e.g., the molars, or teeth in position 7 and/or 8) then the next anterior-positioned teeth move sequentially until all of the teeth reach their final position, with the next anterior-positioned tooth not scheduled to begin moving until at least approximately the half-way stage of its respective posterior positioned tooth”

42. The ’444 patent specification explains, “For a set of teeth lacking space in between

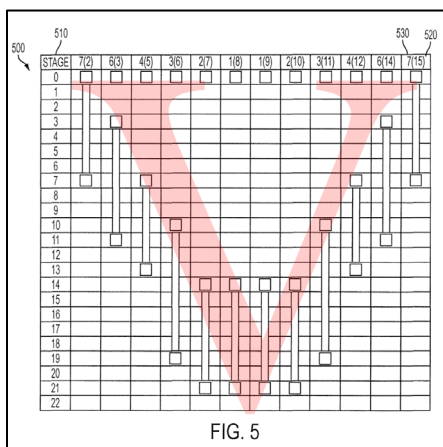
at least two teeth (i.e., over-crowding), the program is configured to utilize a ‘V-shaped’ pattern in staging a set of aligners to correct the teeth.” ’444 pat., 9:12-15. The specification also describes examples of how teeth can move in a “V-shaped” pattern. ’444 pat., 9:15-10:18.

43. One example of a “V-shaped” pattern is illustrated in Figure 5:

Fig. 5 is a diagram illustrating an example of a “V-shaped” pattern **500** in accordance with one exemplary embodiment of the invention. . . . [C]olumn **510** illustrates the number of stages needed to correct the patient's teeth. In this example, the patient requires 20 stages of treatment before the patient's teeth reach their final position in stage 21. Moreover, . . . FIG. 5 uses the standard teeth numbering system **520** to identify each of the teeth and a position **530** to illustrate the respective positioning of the teeth on the patient’s arch.

’444 pat., 9:39-51; see also *id.*, 9:52-10:18.

44. Figure 5 is reproduced with annotations below. As shown, that figure depicts a pattern shaped like a superimposed letter “V.”



45. An orthodontist familiar with the English letter “V” would have understood what was meant by “V shaped” pattern. As the figure shows, when using a “V” shaped pattern, the teeth move in a pattern shaped like a “V.”

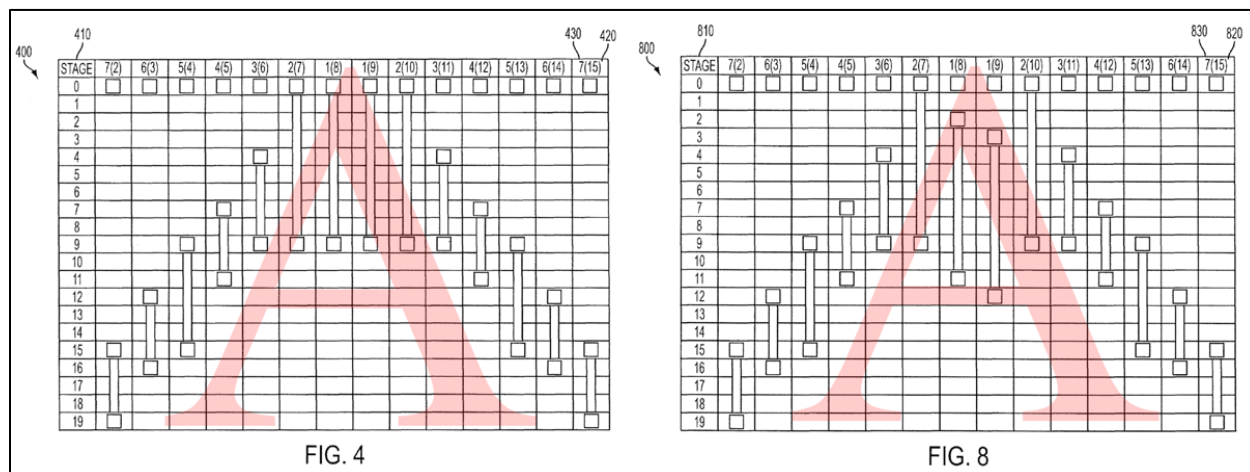
46. ClearCorrect’s proposed definition is too narrow because under ClearCorrect’s construction, each tooth only begins moving after the next most-posterior tooth. But in Figure 5, all of teeth 2(7), 1(8), 1(9), and 2(10) move at once, even though teeth 1(8) and 1(9) are anterior

to teeth 2(7) and 2(10). *See id.*, Fig. 5.

b. “A-shaped pattern” (’444 patent, cls. 9, 23, 37; ’456 patent, cl. 3)

Align’s Construction	Defendants’ Construction
No construction necessary (plain and ordinary meaning)	“A pattern where teeth having the same and/or similar positions on the arch will be moved beginning at the same stage, and will move continuously until they reach their final position, with the most anterior-positioned teeth (e.g., the incisors, or teeth in positions 1 and/or 2) moving first and then the next posterior-positioned teeth sequentially moving until all of the teeth reach their final position”

47. The specification identifies Figures 4, 8, and 9 as examples of “A-shaped” patterns and explains how the teeth can move in each exemplary pattern. ’444 pat., 8:26-9:11, 12:66-13:16, 13:35-53. Each figure uses the standard “Universal” tooth numbering system to identify each of the teeth and a position to illustrate the respective positioning of the teeth on the patient’s arch. *See* ’444 pat., 8:32-35. Figures 4 and 8 are reproduced with annotations below.



48. The specification uses “A-shaped pattern” according to its ordinary meaning: a pattern shaped like an “A.” An orthodontist familiar with the letter “A” would have had no difficulty understanding what this term meant. As shown in the figures, each movement pattern is

generally “A” shaped.

49. ClearCorrect’s proposed definition is too narrow because it requires the “most anterior-positioned teeth” to move first. As the specification recognizes, a treatment pattern may be “A” shaped even if the “most anterior-positioned teeth” do not move first. For example, in the “A-shaped” pattern shown in Figure 8 of the ’444 patent, the most-anterior positioned teeth 1(8) and 1(9) move only after the second-most-anterior positioned teeth 2(7) and 2(10). *See* ’444 pat., Fig. 8. Similarly, in Figure 9, tooth 1(8) moves after tooth 3(6)). *See id.*, Fig. 9.

c. “M-shaped pattern” (’444 patent, cls. 10, 24, 38; ’456 patent, cl. 3)

Align’s Construction	Defendants’ Construction
No construction necessary (plain and ordinary meaning)	“A pattern where teeth having the same and/or similar positions on the arch will be moved beginning at the same stage, and will move continuously until they reach their final position, with teeth between the anterior teeth and the posterior teeth (e.g., the bicus-pids, or teeth in positions 4 and/or 5) and both the adjacent anterior and/or adjacent posterior teeth then sequentially moving until all of the teeth reach their final position”

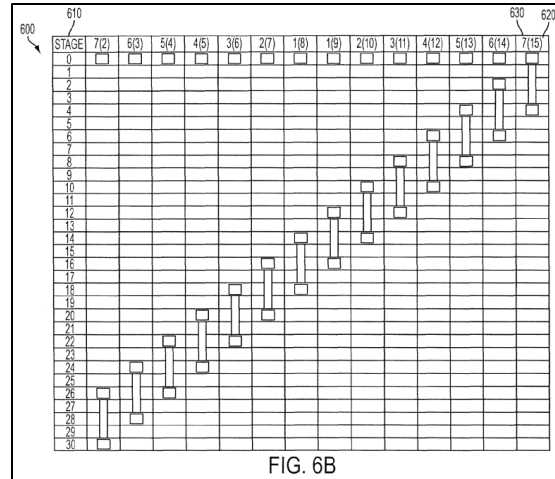
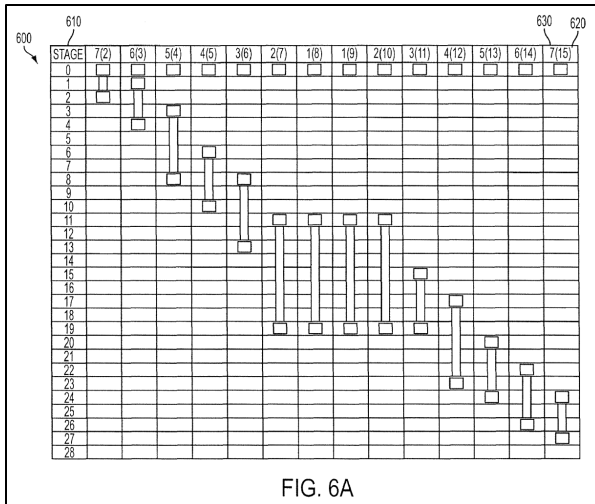
50. The specification provides examples of how teeth can move in an “M-shaped” pattern. ’444 pat., 11:44-64, 12:7-32. For example, it identifies Figure 7 as showing an “M-shaped” pattern. ’444 pat., 12:7-9. Figure 7 is reproduced with annotations below:

rather, the goal of the staging pattern. In dentistry, a dental “mid-line” is a line between a patient’s top, middle two teeth or a line between their bottom, middle two teeth, and a facial “mid-line” is a line on the vertical plane that splits the face into left and right halves.

54. If a patient’s dental mid-line is off-centered (i.e., one arch is skewed to one side relative to the other arch or to the patient’s face), then treatment to correct this midline discrepancy requires shifting the patient’s teeth until the midline is centered with the target (i.e., either the midline of the opposite arch or the midline of the face). For example, if a patient’s lower midline is positioned too far to the right, then the patient’s lower anterior teeth must move left for the lower midline discrepancy to be corrected. And, if the patient’s lower anterior teeth are to move left, then the left-most teeth in that arch will need to move first to avoid collisions.

55. The ’444 patent explains this concept. For example, it states “if a patient’s teeth are skewed to the left or right of the patient’s mid-line, a “‘Mid-Line Shift’ pattern . . . can be selected by a system user to enable the program to coordinate the staged movement of the patient’s teeth.” ’444 pat., 5:52-57; *see also id.*, 10:19-21. The ’444 patent also describes examples of how the teeth may move in mid-line shift patterns. ’444 pat., 10:21-34, 10:57-11:40.

56. Figures 6A and 6B illustrate two exemplary mid-line shift patterns. ’444 pat., 10:57-60, 11:17-20. These figures mirror how an orthodontist would have understood the term “mid-line shift” because they show moving teeth from one side of a patient’s mouth to another side in roughly sequential order. ’444 pat., Figs. 6A, 6B. For example:



57. Based on the description and figures, the specification uses “mid-line shift” consistent with the ordinary meaning in orthodontic treatment.

58. ClearCorrect’s proposed definition is too narrow because it requires that the “next tooth/teeth” do not move until “at least approximately the half way stage of its respective previously scheduled tooth/teeth.” Under the ordinary meaning of “mid-line shift pattern,” there is no requirement that the “next tooth/teeth” only begins moving after the “previously scheduled” tooth/teeth move only after that tooth or teeth reach their “half way” stage. Additionally, ClearCorrect’s proposed definition conflicts with the diagram shown in Figure 6A. In that diagram, multiple teeth move in parallel, rather than sequentially. *See* ’444 pat., Fig. 6A.

VI. RIGHT TO SUPPLEMENT

59. I reserve the right to modify or supplement the opinions I have expressed in my declaration. I further reserve the right to provide additional opinions if asked to do so, including in response to additional opinions offered by ClearCorrect’s experts or based on new information that becomes known to me.

VII. MATERIALS CONSIDERED

60. In forming my opinions set forth in my declaration, I have considered and relied upon my education, knowledge of the field, and experience. I have also reviewed and considered the following materials: U.S. Patent No. 8,038,444; U.S. Patent No. 11,369,456; the October 31, 2024 Declaration of Dr. William Harrell, Jr., DMD; the materials listed in Section VII “Materials Considered” of Dr. Harrell’s declaration; and ClearCorrect’s Opening Claim Construction brief in this proceeding (ECF No. 121). I have also reviewed dictionary entries in the American Heritage Dictionary (4th ed) 2004 (Ex. H to ECF No. 121), Mosby’s Dental Dictionary (2004) (Ex. I to ECF No. 121), and Merriam-Webster’s Medical Desk Dictionary (2002) (Ex. J to ECF No. 121).

61. If I am asked to testify or provide additional opinions in connection with this matter, I reserve the right to rely upon any additional materials or information that may be provided to me or that any of ClearCorrect’s witnesses or experts rely upon.

Dated: November 25, 2024

A handwritten signature in black ink, appearing to read 'Eric Kuo', positioned above a horizontal line.

Eric Kuo, DDS, MS

APPENDIX A



Eric Kuo DDS MS
Orthodontic Specialist

Eric Kuo, DDS MS

Experience

7/1999-present

Orthodontic Practice - San Francisco, CA

- Private orthodontic clinic
- CA dental license #43540
- Offering Invisalign in SF since 1999, with 400+ cases treated to date
- Member (1999-present): AAO, CAO, ADA, CDA, SFDS

7/1999-present

Clinical Lecturer

- Yankee Dental Congress presenter, 2017
- European Aligner Society Inaugural Congress presenter, 2016
- American Association of Orthodontists Annual Meeting presenter, 2015
- SOS Conference presenter, 2014
- UCSF Orthodontics - Wendell Wylie Memorial Lecture presenter, 2013
- Invisalign Summit conference presenter: 2014, 2013, 2008 (EU), 2004, 2003, 2001
- SAS Data Mining Conference presenter, 2010, 2008
- Invisalign Clinical Education faculty, 1999-2017

1998-1999, 3/2013-present

Orthodontic Consultant

- Technical advisor to Align Technology Inc., the makers of Invisalign® clear orthodontic aligners

1999-3/2013

Align Technology, Inc - San Jose, CA

- Former Vice President of Clinical Technology (R&D)
- Inventor on 150+ issued US patents related to clear aligner orthodontics
- Co-Chair, Invisalign Educator's conference, 2012
- Created Align's university research award program (~\$3MM awarded since 2010)
- Created Align's university case gallery program (Invisalign University Challenge)
- Managed Align's Clinical Advisory Board
- Editor, Invisalign Gallery publication, 2010-2014
- Clinical lead for Align's FDA 510(k) application for expanded labeling for the Invisalign System (granted 12/2008)



Eric Kuo DDS MS
Orthodontic Specialist

Professional Education/ Training

1996-1999	UC San Francisco	San Francisco, CA
Orthodontic Residency, Master's Degree in Oral Biology		
1992-1996	UC Los Angeles	Los Angeles, CA
DDS Degree		
1988-1992	Stanford University	Palo Alto, CA
BS with Honors in Chemistry		
2006	Northwestern University	Chicago, IL
Executive Management Certificate, Kellogg School of Management		
2015-2018	Western Seminary	San Jose, CA
Certificate in Transformational Coaching and ICF coaching credential (ACC level)		

Publications/ Articles

- **Kuo, E**, editor, The Invisalign Gallery, 2010-2014
- **Kuo, E.**, clinical consultant, The Invisalign Gallery, 2015-2021
- **Kuo, E**, contributing author (chapters 10, 13, 21, 30), The Invisalign System Textbook, Tuncay O, (Editor), Quintessence, 2006.
- Paquette D, **Kuo E**, The Future of Orthodontics in the Next Ten Years, *SAO News*, Spring 2006, 23-24.
- Duong T, **Kuo E**, Finishing with Invisalign, *Prog Orthod*. 2006;7(1):44-55.
- **Kuo E**, Miller R, Automated custom-manufacturing technology in orthodontics. *Am J Orthod Dentofacial Orthop*. 2003 May;123(5):578-81.
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- Nachnani S, Wolinsky L, Hewlett E, **Kuo E**, Snyder T, Choi H, Efficacy of Nite White Whitening Gel – A Clinical Trial, *J. Dental Research*, 76, 1997, pp. 649-649.
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